

Abstract

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Diploma thesis

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Title of diploma thesis: Isolation of plant organelles and study of transport mechanisms

Key words: isolation, chloroplast, protoplast, vacuole, cell wall

Isolation of plant organelles and other cellular components is essential for the study of physiological and pathological processes within the plant cell. It is possible to analyze cell structures, detect accumulation of certain metabolites, ions, enzymes and other substances thanks to the isolation. The goal of this diploma thesis was to provide an overview of isolation methods used for the isolation of cell wall, protoplasts, chloroplasts and vacuoles of plant cells. Isolation processes used for individual types of cell structures, the pros and cons of the various isolation methods, components of used media and their functions, as well as the structure and function of individual plant structures were described.